

What is claimed is:

1. An apparatus for changing representation contents on a sub-display of a mobile communication terminal, comprising:

5 a rotary switch rotatably installed around a front circumferential portion of the sub-display provided in a dual-folder type mobile communication terminal, the rotary switch having an opening formed at a central portion such that the sub-display is exposed outwardly;

10 a rotation detecting sensor installed adjacent to a back portion of the rotary switch inside a case of the terminal, for sensing a rotation of the rotary switch to generate a predetermine input signal; and

a controller installed inside the case of the terminal,  
15 the controller having one side connected to the rotation detecting sensor and the other side connected to the sub-display, wherein the controller generates different output signals according to the input signal outputted from the rotation detecting sensor to thereby display different  
20 contents on the sub-display.

2. The apparatus as recited in claim 1, wherein the controller includes:

a memory device installed in one side of a circuit board  
25 embedded in the terminal, for storing data to be displayed on the sub-display; and

a microprocessor installed in the other side of the circuit board, for loading and processing the data stored in the memory device according to the input signals outputted from the rotation detecting sensor and transferring the processed signals to the sub-display.

3. The apparatus as recited in claim 1, wherein the rotary switch includes a plurality of protrusions formed on a circumferential portion of the rotary switch at predetermined intervals along a circumferential direction, and a locking member is formed at one side of a terminal case adjacent to the protrusions of the rotary switch, the locking member having a groove formed in a shape corresponding to the protrusion.

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4. The apparatus as recited in claim 1, wherein the rotary switch includes:

a body formed in a ring shape; and

a plurality of protrusion pieces protruded inwardly or outwardly in a radial direction at predetermined intervals along a circumferential direction.

5. The apparatus as recited in claim 1, wherein the rotation detecting sensor is an optical sensor, wherein the optical sensor includes:

a light-emitting unit for radiating light toward the protrusion pieces; and

a light-receiving unit for sensing the light reflected by the protrusion pieces.

6. The apparatus as recited in claim 1, wherein the  
5 rotary switch includes:

a body formed in a ring shape; and

a plurality of magnets attached to the body at predetermined intervals along a circumferential direction, and

the rotation detecting sensor is a magnetic sensor for  
10 sensing a magnetic field of the magnet approaching thereto due to a rotation of the rotary switch.